



saving sight through eye research

1969 Annual Report / Research to Prevent Blindness, Inc.





Robert E. McCormick, co-founder of Research to Prevent Blindness, Inc. and president since its establishment in 1960, died in New York City on November 26, 1969 at the age of 67.

Mr. McCormick earned wide recognition throughout a successful and rewarding career as a corporation lawyer. He had been general counsel and secretary of Olin Mathieson Chemical Corporation, following 27 years with the firm of Alexander and Green, and held important posts representing prominent corporations and agencies as counsel in this country and abroad.

To his wide circle of friends and associates, however, Mr. McCormick will be remembered most as a man of great compassion who already had dedicated much time and effort to the advancement of young people before the tragedy of visual failure drew his interest to eye research.

In 1955 Mr. McCormick lost the sight of one eye through a retinal detachment. Later, a similar condition in the other eye left him with only partial vision. It was during this difficult experience that he became aware of the great gaps in scientific knowledge of the visual system. At a social gathering with Dr. Jules Stein, chairman of MCA Inc., Mr. McCormick first suggested the need for a unique voluntary organization that would adapt modern business techniques to the development of a nationwide program of intensified eye research.

Out of this conversation evolved Research to Prevent Blindness, Inc. (RPB) with Mr. McCormick as president and Dr. Stein as chairman of a board which included a small but unusually effective group of philanthropic and business leaders. In this last decade of Mr. McCormick's life, RPB has brought about a renaissance in eye research.

In May, 1969 Mr. McCormick was presented with the Citizen's Award of the New York County Medical Society. He was to be honored in 1970 by the Association for Research in Ophthalmology for his role in the development of RPB and his many contributions to the preservation of sight. The leadership, advice and warm friendship of Bob McCormick will be sorely missed by his associates as they carry on the work to which he was so dedicated.

Scientists now have at their fingertips techniques and equipment never before available for observation and study of the most intricate processes of sight. The conquest of blinding diseases has begun. (RPB Grantee—Baylor University)



Research to Prevent Blindness, Inc. / a unique force for the preservation of sight through eye research

The threat of serious visual loss—and blindness—is a catastrophic problem for people of all ages. More than 500,000 major surgical operations are performed on eyes in the United States each year. Many times that number of serious eye conditions are treated medically, without surgery. At one leading eye center (Massachusetts Eye and Ear Infirmary) almost 10,000 eye operations were carried out last year, 6,600 of these involving major surgery. During that period the same center also handled 55,000 visits to its eye clinic and 12,000 emergency patients. Across the nation, more than ten percent of all hospital patients are eye patients. And there is justifiable suspicion that multitudes of untreated people are living with serious eye difficulties that should have expert medical attention.

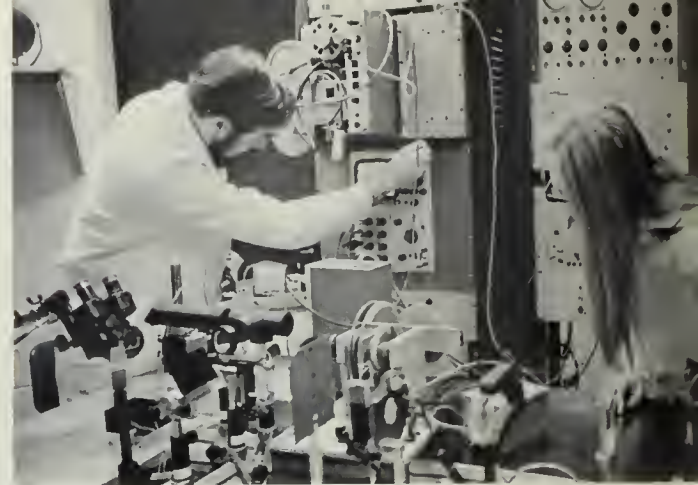
In support of the desperate effort to preserve sight, Research to Prevent Blindness, Inc. (RPB) has brought voluntary leadership to bear in the development of a nationwide program of scientific research. Its immediate goal is to cut the toll of blindness among those whose sight already is threatened. Its ultimate goal is to find and eradicate the causes of eye diseases which will blind half a million Americans in the next decade if not brought under control. More than 80 percent of all blindness is the result of diseases which cannot now be prevented and whose causes are unknown. Supported by RPB, the extraordinary potential of modern technology is being employed to penetrate these mysteries—with impressive effect in the saving of sight.

Eye Diseases / a vast complex of problems

In a single day an ophthalmologist at any large hospital may deal with cataracts, glaucoma, amblyopia, retinal detachment, corneal disease, uveitis, strabismus, injuries and a host of other serious eye conditions which he must diagnose and treat with utmost precision. A recent government publication cites 75 different causes of blindness, and even this list is not exhaustive. Many are separate disease entities, each attacking the visual system in a different way and at different points essential to the process of sight.

In cataract, for instance, the eye's ability to admit light is blocked by a clouding of the lens, which must be removed by surgery if an image is to reach the film-like retina at the back of the eye. On the other hand, if the retina becomes detached or diseased, its ability to transmit visual impulses to the brain is impaired. In glaucoma, the normal flow of fluid in and out of the eye is interrupted, with a build-up of internal pressure that may damage or destroy the optic nerve. Retinopathies such as those caused by diabetes threaten the blood supply that nourishes the visual cells. Strabismus and amblyopia involve the elaborate mechanisms which coordinate the movements of the eyes. Viral diseases and other infections pose special problems wherever they occur in the eye.

And so the list of defects and diseases and disruptions grows, most of them unpreventable, daily challenging the knowledge and the skill of the ophthalmologist as he seeks to bring them under control. At stake is the sight of the patient.



Complex and costly laboratory equipment is providing new insight into the microscopic structure of eye tissues, in this case the sensitive elements of the retina.

(RPB Grantee—Columbia University)

After surgery for congenital glaucoma, the inner eye of a tiny patient is illuminated and examined through fiber optics technique to evaluate the effectiveness of the treatment.

(RPB Grantee—Indiana University)





External eye diseases involving the cornea, lens and anterior chamber of the eye may now be photographed for diagnosis and study with newly-developed zoom slit lamp camera.
(RPB Grantee—University of California, San Francisco)



Potential effectiveness of new drugs is largely dependent upon the permeability of specific target tissues, a physiological process here under discussion by a professor and resident in ophthalmology.
(RPB Grantee—University of Colorado)

The probability that supposedly controlled syphilis may persist in the eye and cause deterioration of vision was revealed through research in which 250 nuns volunteered as a celibate group to demonstrate the validity of test techniques.
(RPB Grantee—George Washington University)



Leaking blood vessels in the retina, produced by diabetes, are photographed and analyzed in comparative studies aimed at controlling the nation's most rapidly-increasing cause of blindness.
(RPB Grantee—Boston University)



RPB Funds in the nation's laboratories

The emergence of a nationwide research attack against blinding diseases is the clinician's most effective ally—and the only realistic hope for blindness prevention. Research to Prevent Blindness, Inc. (RPB) was created in 1960 with the purpose of moving what was then an infant science into the mainstream of medical research. Its accomplishments in the ten years since then have demonstrated the enormous scientific potential that exists for the preservation of sight.

RPB grants now reach more than 40 research institutions. Only a few of these had strong eye research programs a decade ago, and even these were suffering from obsolescence of equipment and facilities, shortage of full time investigators, and lack of sufficient financial support. At more than half the nation's medical schools, ophthalmology was a sub-specialty under departments of surgery, little oriented toward research. Even among the splendid National Institutes of Health, eye research was hidden in the National Institute of Neurological Diseases and Blindness, receiving (as late as 1960) less than \$5 million a year of the many hundreds of millions of tax dollars that are invested annually for medical

RPB unrestricted grants provide scientists with freedom to explore a wide variety of concepts in the saving of sight, such as: (left to right) electronic instrumentation to speed visual field testing and the diagnosis of disease; basic studies of the isolated lens, important to eventual control of cataracts; computerized analysis of the human retina's visual pigments and their role in night blindness; and the development of projects in immunochemistry, a field of broad significance in which eye research is making major contributions to all medical science.



RPB Grantee—University of Texas

research and training.

RPB provides the machinery for actively interested laymen to join with scientists and physicians in vastly increasing the scope and the pace of eye research. It has invigorated the programs of established eye centers, encouraged and nourished the intensification of eye research at laboratories with high potential but meager resources, and it has stimulated the creation of excellent new efforts where eye research once barely survived.

Eye Research Needs

The accomplishment of these goals has required a substantial investment of money. Equally important has been the RPB concept of its dynamic role as an agent for the man in the laboratory, helping him resolve critical non-scientific problems which otherwise would impede and delay his work. He needs more and better laboratory space. He recognizes shortcomings in the availability of training for competent young researchers. He sees opportunities for advanced research being wasted when the cost of new technological equipment is beyond his resources. He finds that government funds available to him for eye research are

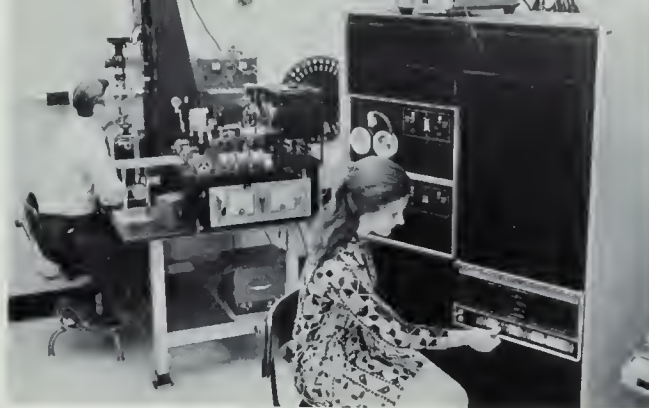
inadequate to his capabilities and well beneath support given other branches of science. He is continuously faced with the question of how to sustain not only his ongoing programs, but the many untried but potentially revolutionary ideas for which he has neither the space, the equipment, the personnel, nor the financial resources to initiate.

RPB has channeled more than \$18,000,000 into eye research over the past decade in its increasingly successful programs to solve these "logistical" problems while providing maximum freedom for researchers to get on with the work for which they have been trained.

To strengthen the hand of those who direct eye research at some 40 institutions, RPB makes annual grants without restricting their use to specific projects. More than \$1,400,000 in RPB funds has been allocated in this manner, providing ophthalmic research directors with fluid resources that multiply the effectiveness of the entire eye research team. A random sampling of progress reports from RPB grantees illustrates the extraordinary versatility of these grants in the hands of resourceful scientists.



RPB Grantee—Mount Sinai Hospital



RPB Grantee—New York University



RPB Grantee—University of Pennsylvania

Solving Research Problems

Among a wide variety of uses in 1969, RPB funds were:

- Applying aerospace technology to important clinical problems of vision loss due to vascular diseases such as atherosclerosis, hypertension, vasculitis and diabetes—all major causes of blindness.
- Pinpointing a specific enzyme as a probable causative agent in sugar cataracts.
- Establishing an outstanding elective course in ophthalmology in conjunction with one of the finest eye research units in the nation.
- Developing advanced surgical procedures, such as microsurgery, cryosurgery, the surgical use of synthetic adhesives and other techniques never before available in the saving of sight.
- Tracing the effect of drugs and other chemicals upon the visual system.
- Investigating immunity, rejection and other factors involved in tissue transplantation, with wide application to organ grafting.
- Studying the use of new diagnostic devices, such as ultrasound and thermography, to disclose hidden eye conditions.
- Testing new and safer materials, such as soft contact lenses, in the treatment of corneal disease and other eye conditions for which there has been no satisfactory therapy.
- Preserving the continuity of work of key research personnel when government resources were delayed or discontinued.
- Producing significant findings on the genetic basis for glaucoma through continuing studies of population groups, including a tribe of Arizona Indians and volunteers from a Federal penitentiary.
- Making it possible to predict the potential visual acuity in patients with cataract and corneal scars *before* surgery is performed.
- Developing a laboratory of Experimental Ophthalmic Microbiology and Immunology at a major research institution.
- Evolving a promising new clinical test for degenerative retinal disorders and night blindness.
- Producing the world's largest and finest collection of stereo-photographs of external eye diseases, now in constant use in the advanced training of ophthalmologists and in the preparation of invaluable teaching atlases on blinding diseases.
- Studying the validity of a controversial

syphilis test with the assistance of 250 volunteer nuns.

- Supporting investigations in cell biology including intracellular dissection and the micromanipulation of cells, bearing importantly upon understanding of aging diseases such as senile cataract and retinal degeneration.
- Assisting in the computerization of massive volumes of scientific and medical information, making available in a few seconds data which once took weeks to acquire.

RPB-supported research produced scores of scientific papers in major professional journals during 1969, bringing important new knowledge of the visual system and its diseases to scientists and physicians. Each RPB grant served a research director in a way that *he* considered most important to the thrust of his total eye research program. Whether it sustained a special project, met an emergency, plugged a gap, or opened a new opportunity, for each investigator the availability of RPB funds permitted him to act with freedom and imagination to expand the capabilities of his laboratory.

Collaboration for saving sight

As RPB grants accelerate and strengthen eye research in the nation's laboratories, a cohesive scientific effort against blindness is taking shape, with RPB serving as a catalyst. In winning for eye research the recognition and increased support it has so long merited, RPB has fostered a resurgence of enthusiasm and optimism among investigators. Opportunities for greater collaboration within the scientific community have been created. Scientific communications are being vastly expanded. The once-solitary investigator in ophthalmology now finds himself among a fast-growing community of colleagues representing a host of scientific specialties whose skills are needed for exploration of fruitful new areas of eye research.

During 1969 RPB funds were in use across the whole spectrum of eye research activity. The manpower shortage was being attacked specifically through salary support to key investigators, both on an emergency basis and through the further development of the RPB Research Professorship Program. At the same time, on a broader scale, the

pool of potential investigators and teachers was being expanded through the investment of RPB grants to develop and strengthen teaching programs in ophthalmology.

At Harvard Medical School an elective course in ophthalmology was being developed with RPB support to bring exceptionally qualified medical students in greater contact with the basic sciences of ophthalmology. At the Proctor Foundation of the University of California, San Francisco, RPB funds provided outstanding teaching materials for advanced study of eye diseases in the fellowship training program.

At the University of Miami, Florida, a newly-awarded RPB Research Professorship brought to that institution a gifted young electron microscopist, Dr. Douglas Anderson, and assured continued support of his work. The RPB Professorship brings with it guaranteed salary support of \$15,000 per year over a five-year period. Other RPB Professors at Johns Hopkins University and the University of Pennsylvania already have established an

Typical of brilliant young investigators being attracted to eye research are recent RPB Research Professor John E. Dowling, M.D. and RPB Manpower Awardee Stephen S. Easter, Jr., Ph.D., shown collaborating in basic studies of optic nerve cells (first photo, right), and Dr. Douglas Anderson, who has been awarded an RPB Research Professorship at the University of Miami (second photo, right).



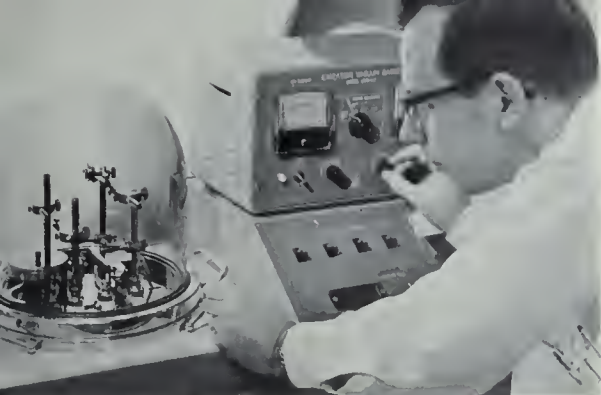
RPB Grantee—Johns Hopkins University

impressive record of scientific achievement.

New Programs

The appointment in 1969 of three foreign ophthalmic scientists as RPB International Research Scholars marked the first extension of RPB's activities into the international field. The new program provides for short-term visits by established foreign investigators to American institutions to participate in collaborative studies, to lecture and exchange ideas with their American counterparts and students. The ultimate aim is to broaden the impact of new research concepts and techniques on a world-wide basis.

From the Netherlands in August came an internationally recognized authority in medical education to begin work as an RPB International Scholar at the University of Iowa, while a West German expert in ophthalmic ultrasound techniques engaged in collaborative studies at Columbia University (See photos, page 14). A third RPB Scholar,



RPB Grantee—University of Miami

a Japanese pharmacologist, is scheduled to participate in important work at the Retina Foundation, Boston.

Broadening the Impact of Knowledge

RPB funds in 1969 were exploring and exploiting all practical means of transmitting scientific knowledge, from the personal side-by-side contact of the crowded laboratory to the cold, push-button economy of the electronic computer. They assisted the continued organizational development of the Association of University Professors of Ophthalmology in its pursuit of excellence in standards of eye research through an RPB Special Grant of \$2,500. A similar grant of \$1,500 to McGill University, Montreal, helped make possible the Sixth Ophthalmic Biochemistry Conference at Woods Hole, Massachusetts, where 53 biochemists reported on their work in vision research and drew upon one another for criticism and advice. A major symposium covering expanding research into the physiological and biophysical

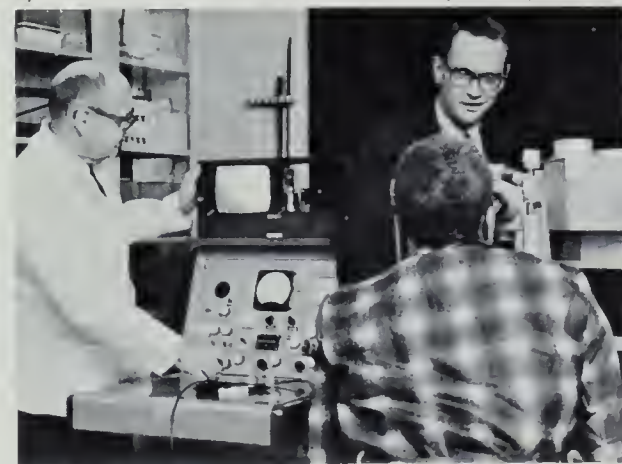


Researchers in visual sciences share knowledge of latest developments in their field at international symposium on "The Control of Eye Movements," supported by RPB funds. (RPB Grantee—University of the Pacific)

aspects of eye movement control was financed through RPB's unrestricted grant to the University of the Pacific, and the publication of the resulting volume, "The Control of Eye Movements," is being carried out with RPB support.

Obviously, the pursuit of eye research will continue to move scientists ever more deeply into increasingly complex and diverse areas of investigation. As they draw closer to explaining the mysteries of sight, their logistical needs grow, becoming more specialized, more precise, and usually more costly. The need for efficiency in organization, administration and financing within the total eye research effort is essential. It is in this area that the practical business knowledge and experience of RPB's Board of Trustees, combined with the broad scientific knowledge and insight of its Scientific Advisory Panel, have proven to be invaluable assets. Their unique application to the preservation of sight through the medium of Research to Prevent Blindness, Inc. has at last brought hope for the eventual conquest of blinding diseases.

In a cooperative project with NASA and the Air Force School of Aerospace Medicine, RPB funds have contributed to development of a camera producing highly magnified color motion pictures of the blood as it circulates in the retina, for studying eyes threatened by vascular diseases. (RPB Grantee—University of Oregon)

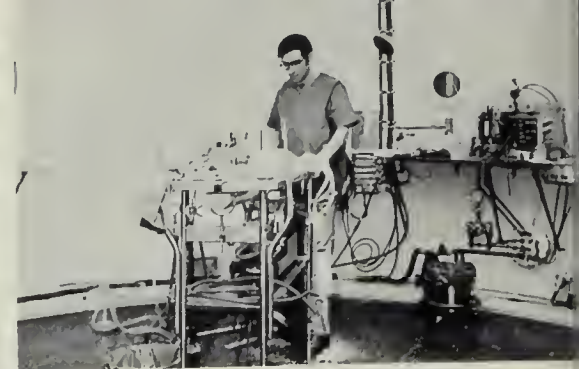


Meeting the Challenge

through eye research



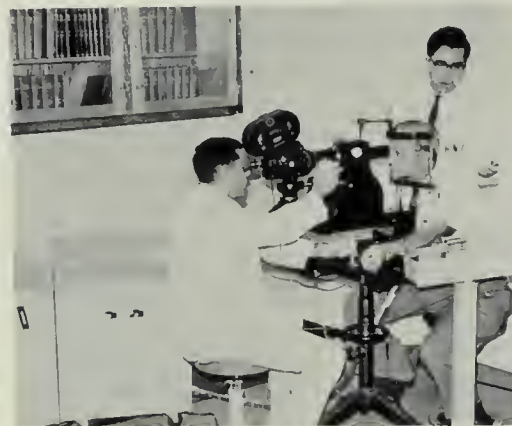
A microscopic study of living structure in the front chamber of the human eye may offer new criteria for the early diagnosis of glaucoma.
(RPB Grantee—Marquette University)



Changes in the delicately balanced visual system created by different atmospheric pressures are studied under controlled conditions in a hyperbaric chamber.
(RPB Grantee—Duke University)



A soft contact lens is inserted as an "optical bandage" in the eye of a patient with corneal dystrophy. (RPB Grantee—University of Florida)



The eye provides new insight into the mechanism and treatment of various circulatory disorders through a combination of photographic and calculation techniques which record normal and abnormal states of blood flow.
(RPB Grantee—Georgetown University)



The aging process, causing blindness through senile cataracts and retinal degeneration, is the subject of investigations in cell biology to pinpoint changes in cells of lens and retina that take place with age.
(RPB Grantee—Temple University)



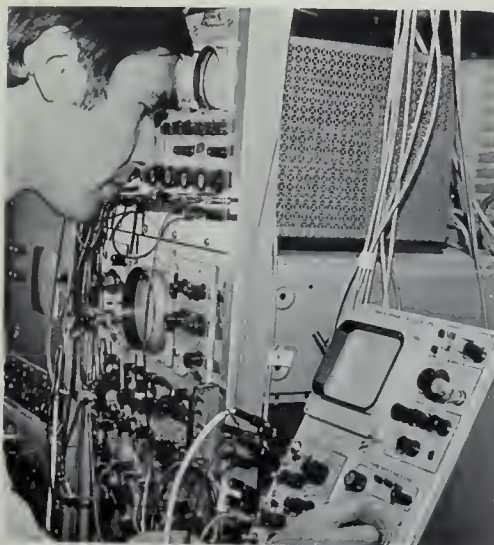
Glaucoma, often undetected until eye damage is far advanced, is revealed through newly developed electronic tonograph which accurately measures and records pressure within the eye. (RPB Grantee—Stanford University)



The optic disc of a patient with papilledema becomes one of thousands of exceptionally illustrative photos of eye diseases now used for instruction of scientists and physicians who will carry on the fight against blindness. (RPB Grantee—University of California, San Francisco)



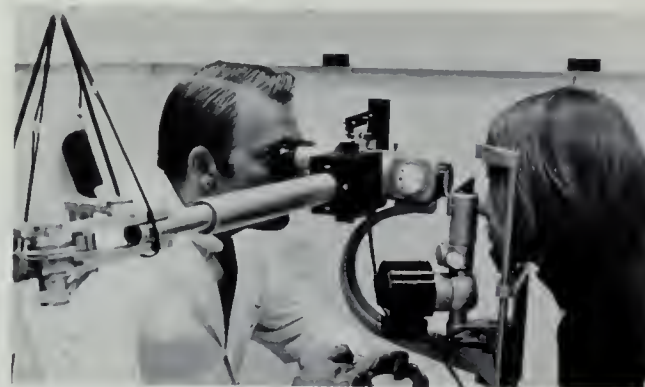
Dual operating microscope permits a scientist and his technical assistant to observe simultaneously the results of experimental treatment in the eye of a laboratory animal. (RPB Grantee—Tulane University)



Computer analysis accelerates the work of neurophysiological research aimed at control of amblyopia, a leading cause of visual disability in children. (RPB Grantee—University of Miami)



By devising complex systems that reveal the living visual system without damage to the eye, scientists may now observe and influence its most delicate structures and functions. (RPB Grantee—University of Texas)



Laser beam from a multi-spectrum laser is directed into patient's eye via biomicroscope, permitting extremely precise and selective therapy of various types of tissue of the inner eye. (RPB Grantee—Jefferson Medical College)

Building

for better
eye research

The rapid growth of eye research has created an unprecedented demand for laboratory space by scientists who find their productivity severely limited by the difficult conditions under which they work. Nowhere has the neglect of eye research been more evident than in the inadequacy of its facilities at most institutions. An exhaustive survey conducted by RPB in 1963 revealed that less than 10 per cent of the nation's medical schools provided reasonable amounts of space for ophthalmic research. Even those institutions with a long tradition of ophthalmic leadership were bursting at the seams, unable to expand to meet their new capabilities.

RPB has met this challenge through a unique laboratory construction program which enables qualified institutions to build modern eye research facilities with minimum administrative effort, maximum speed and at no fund raising cost. By the end of 1969 the program had produced modern research buildings for four major eye centers and brought more than \$16,000,000 in construction funds directly to the institutions

involved. The fund raising costs (less than two per cent) were paid by RPB, so that every contributed dollar was used entirely for eye research purposes.

New Centers Completed

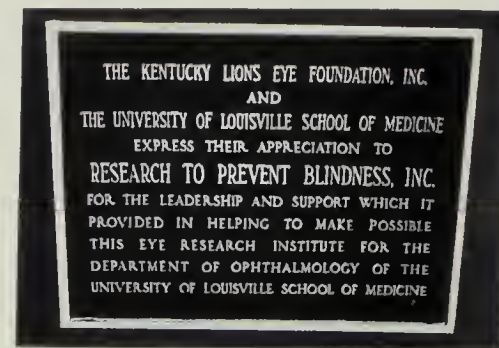
June of 1969 saw the dedication of a \$2,000,000 ophthalmic research center at the University of Louisville—the third major facility to be completed with RPB sponsorship. The construction campaign was a cooperative undertaking, with the Kentucky Lions and the University joining forces with RPB to assure its success.

By the year's end a fourth eye center was being readied for occupancy—an eight-story, \$6,600,000 addition to the renowned Columbia-Presbyterian Institute of Ophthalmology in New York City. The Columbia campaign, which was initiated by Research to Prevent Blindness, Inc., far exceeded its original goal of \$3,000,000, and thus has given well-earned support to an outstanding Institute which will continue to

spearhead important advances in ophthalmology.

Meanwhile, a construction campaign at Duke University, North Carolina, is proceeding on schedule, and nine other major medical institutions are reviewing with RPB their plans for laboratory expansion.

The significance of RPB's building program is evident at those institutions where new facilities constructed with RPB support have been operative for some time. The Jules Stein Eye Institute at the University of California, Los Angeles, now a bustling center of ophthalmic progress, has attracted the attention of scientists and physicians from all parts of the world, both for its excellence in design and its splendid contributions to the advancement of ophthalmology. The expansion of the famed Wilmer Ophthalmological Institute at Johns Hopkins University, RPB's initial venture in laboratory construction, has ushered in a new era of accomplishment for that illustrious institution.





Construction completed, the nation's third eye research center to be built under RPB's laboratory expansion program was dedicated at the University of Louisville in June 1969. Bronze plaque (inset) cites RPB for its leadership role in the cooperative project. (RPB Grantee—University of Louisville)



Ready for occupancy, the new \$6,600,000 wing of the Columbia-Presbyterian Institute of Ophthalmology in New York City will provide eight floors of modern facilities for the saving of sight. Initiated by RPB, the Columbia campaign marked the fourth major success in its program for the creation of adequate laboratory space for eye research. (RPB Grantee—Columbia University)

Blueprints for a new era in eye research progress, building plans are studied by the ophthalmology staff at Duke University, where a construction campaign for a modern eye center is under way. (RPB Grantee—Duke University)



At The Jules Stein Eye Institute, the world's finest facilities for eye surgery permit the skilled physician to bring the results of research to the patient with maximum effectiveness, safety and speed. Construction of the Institute has given the University of California, Los Angeles, the largest and most modern eye center ever constructed at one time. (RPB Grantee—University of California, Los Angeles)



RPB International Research Scholars

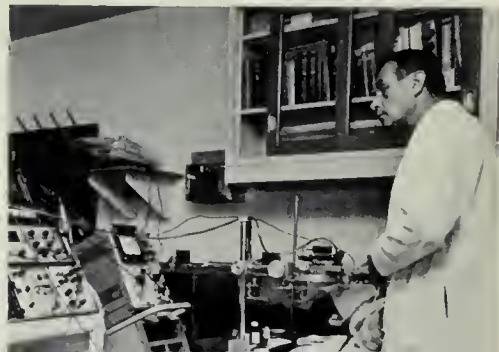
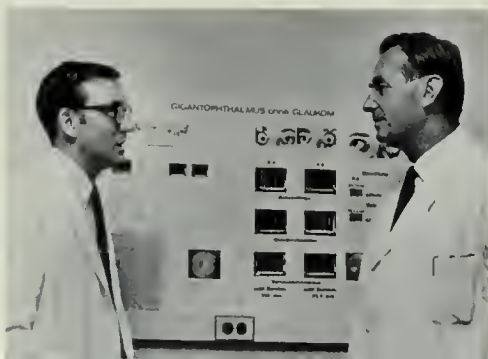
a new program in international communication

More has been learned about the eye in the past ten years than in all the preceding centuries. As new techniques for discovery evolve, and new scientific information is acquired, the dissemination and sharing of knowledge become of critical importance in the saving of sight. To assure that the benefits of excellent research will be felt on a reciprocal basis both here and abroad, RPB provides for the transportation of young, established foreign scientists to visit and work for limited periods in American eye research laboratories as RPB International Research Scholars. The University of Iowa broadened the scope of its eye research training program when RPB awarded an International Research Scholars grant to secure the services of

Dr. August Colenbrander of the University of Leyden, the Netherlands, for a year's cooperative study in the development of techniques of medical education in ophthalmology. An expert in the coding and computerization of medical information and its application to teaching, Dr. Colenbrander is shown (photos—top) in discussions with staff members at the University. At Columbia University, New York, another RPB International Research Scholar, Dr. Hermann Gernet, Professor of Ophthalmology at the University of Munster, West Germany (photos—bottom) spent three months in collaborative studies and lecturing in ultrasound biometry, an area in which his expertise is internationally recognized. He is

shown discussing with Dr. D. Jackson Coleman his discovery of an unusual disease, *gigantophthalmus*, which was not previously discernible until the development of ultrasound techniques. Dr. Gernet (right) uses ultrasound equipment to study the eye of a patient. Sound waves echoing inside the eye reveal features of the interior structure of the globe and the presence of abnormal conditions that cannot otherwise be easily observed.

A third RPB International Scholar is Professor Toshiro Murata of Shizuoka College of Pharmacy, Japan, who will bring his broad experience in pharmacology and neurochemistry to investigations at the Retina Foundation, Boston.



RPB Unrestricted Grant Recipients

Never before has such an intensive, concerted effort been directed toward the preservation of sight through scientific research. Cover photo: (RPB Grantee—University of Chicago)



Institution		1969 Grants	Total Granted Through 1969
California	Francis I. Proctor Foundation	\$ 5,000	\$ 50,000
	*Stanford University	2,500	5,000
	University of California, San Francisco	5,000	50,000
	University of California, Los Angeles	5,000	50,000
	University of the Pacific—Institute of Medical Sciences	5,000	10,000
Colorado	University of Colorado	5,000	30,000
Connecticut	Yale University	5,000	40,000
District of Columbia	Georgetown University	5,000	20,000
	George Washington University	5,000	10,000
Florida	University of Florida	5,000	40,000
	University of Miami	5,000	50,000
Illinois	University of Chicago	5,000	50,000
Indiana	Indiana University	5,000	50,000
Iowa	State University of Iowa	5,000	50,000
Kentucky	University of Louisville	5,000	35,000
Louisiana	Tulane University	5,000	40,000
Maryland	Johns Hopkins University		
	(Wilmer Institute of Ophthalmology)	5,000	50,000
	†University of Maryland	5,000	5,000
Massachusetts	Boston University	5,000	15,000
	Harvard University—Mass. Eye & Ear Inf. (Howe Laboratory of Ophthalmology)	5,000	50,000
	Retina Foundation	5,000	50,000
	*Tufts University	2,500	5,000

†New RPB Grantees

Institution		1969 Grants	Total Granted Through 1969
Michigan	Kresge Eye Institute		\$ 40,000
	University of Michigan	\$ 5,000	50,000
Minnesota	University of Minnesota	5,000	50,000
Missouri	Washington University	5,000	50,000
New York	Columbia University	5,000	50,000
	Cornell University	5,000	50,000
	Eye Bank for Sight Restoration		10,000
	Mt. Sinai Hospital	5,000	25,000
	New York University	5,000	50,000
	Yeshiva University (Albert Einstein College of Medicine)		20,000
North Carolina	Duke University	5,000	20,000
Oregon	University of Oregon	5,000	50,000
Pennsylvania	Jefferson Medical College of Philadelphia	5,000	25,000
	Temple University—Wills Eye Hospital	5,000	15,000
	University of Pennsylvania	5,000	50,000
Tennessee	*Vanderbilt University	2,500	7,500
Texas	Baylor University	5,000	35,000
	†*University of Texas (Southwestern Medical School)	2,500	2,500
Virginia	Medical College of Virginia	5,000	35,000
Washington	*University of Washington	2,500	7,500
Wisconsin	†Marquette School of Medicine	5,000	5,000
Total		<u>\$187,500</u>	<u>\$1,402,500</u>

*Recipients of RPB Research Development Grants

Reporting on Progress

in eye research

Dwarfing scientists on dais, a projected eye becomes the focus of attention for the nation's science writers and ophthalmic investigators during a four-day National Science Writers Seminar in Ophthalmology sponsored by Research to Prevent Blindness, Inc. at Beverly Hills, California.



"The growing promise of eradication of cataract, glaucoma, retinal disorders and other blinding diseases; the development of visual prostheses for the blind and the near-blind; the emergence of safer, surer surgical techniques . . ."

These optimistic words emerged from RPB's Third National Science Writers Seminar in Ophthalmology, summarizing reports by 30 eminent scientists to science writers representing news media throughout the United States. The writers and researchers had gathered in November at Beverly Hills, California, to spend four days in wide-ranging discussion of events now taking place in the search for knowledge of the eye and its diseases.

The scientific participants were men who do the hard work of laboratory research. Their studies spanned the entire complex of clinical and basic sciences which have become the major arenas of activity in the effort to preserve sight. They were interviewed exhaustively by the writers, who then filed daily reports which reached into millions of homes across the nation and abroad, through press, radio and television.

In sponsoring the seminar, RPB was carrying out its most effective function as a catalyst between the scientist and the public, turning the spotlight of national attention upon the unprecedented opportunities that now exist for the conquest of blinding diseases. An informed public, alert to the extent of the blindness problem and aware of the accomplishments and capabilities of eye research, is the surest guarantee that the needs of this important science no longer will be neglected.

Many of the participating scientists had never before faced the scrutiny of competent science reporters. Some had worked for years in anonymity, unaware that the public was vitally involved and intensely interested in what they might be doing. The opportunity to tell of their work, and find it accurately interpreted in the press, was a pleasant and productive experience.

Listening, questioning, evaluating, writing—the story of eye research takes form among intent science writers at the Third RPB Seminar in Ophthalmology.



Dr. Richard L. Masland, Columbia University, discusses the complexity of scientific problems that must be solved before whole eye transplants become a reality.



Reporting on progress /seminar highlights

One investigator whose seminar presentation was reported in all parts of the world wrote, a month after the meeting: "The repercussions from my paper presented at your Science Writers Seminar continue to increase, but all in all it appears to be very much for the good. It has stimulated a tremendous interest in general medicine and ophthalmology and in the work which we have undertaken over the past number of years. There is every evidence that this work has resulted in a major break-through. The coming months will be very exciting for us all."

The months and years ahead *will* be very exciting in the research attack on blindness. For ultimately the achievements of such enthusiastic and talented scientists will preserve the gift of sight for millions of people the world over.



Miriam Kass of the Houston Post, and Dr. Jules Stein, RPB Chairman, pursue points made in his opening remarks regarding the future damage to vision that may be expected in the absence of an intensified eye research effort.



Delos Smith, United Press International; Matt Clark, Newsweek Magazine; Margaret Markham, representing European news media; and Marilyn Dunlap, of the Toronto Star.



Covering the seminar for the major wire services: Ralph Dighton, of Associated Press, and Delos Smith, of United Press International.

CBS Television newscaster James Brown interviewing seminar panelist Dr. Ephraim Friedman, of Boston University, for national television audience.





Drs. Vernon G. Wong, of the National Institutes of Health, Gilbert Smolin, of the University of California, San Francisco, and Robert J. White, of Case Western Reserve University, respond to questioning with explanations in depth of their work.



Loretta McLaughlin, of Medical World News, and William Hines, of the Chicago Sun-Times.

Humor often relieved the intensity of scientific discussion, and Drs. Thomas D. Duane, of Jefferson Medical College, and David G. Cogan, of Harvard University, captured the mood (photo left), along with Ben Zinser, of the Long Beach Press-Telegram, and Harry Nelson, of the Los Angeles Times (photo right).



Following panel sessions, scientists and writers shared numerous opportunities to get acquainted in informal discussions that produced many of the finest news stories.



For Service to Humanity

in the preservation of sight

Humanitarian Award

On May 30, 1969, with his wife at his side, Dr. Jules Stein (center) was presented with the Humanitarian Award of Variety Clubs International, joining a distinguished list of past recipients which includes Albert Schweitzer, Sir Alexander Fleming and Jonas Salk. The Award, "for distinguished service to humanity in the development of a modern, dynamic approach to one of the most feared of all human afflictions," was presented by Variety Clubs International President C. J. Latta (right) at a Los Angeles banquet honoring Dr. Stein which was attended by 1,200 delegates from all parts of the world. In accepting the Award, Dr. Stein called for a far greater involvement of affluent people in humanitarian effort. "Service to humanity," he said, "needs your time, your effort and your ability. These must be expended in your lifetime, or be lost forever."



In an affectionate tribute to Dr. Stein, film stars Gregory Peck, Irene Dunne, Cary Grant and James Stewart reenact highlights of his career at Humanitarian Award Banquet.



"An extraordinary team of scientists who have opened the doors to the understanding of eye diseases which are responsible for most blindness in the world today . . .", was the citation to four researchers of the Howe Laboratory of Ophthalmology at Massachusetts Eye and Ear Infirmary by RPB President Robert E. McCormick (center) in presenting the RPB Trustees Award for Outstanding Ophthalmic Achievement at Boca Raton, Florida in January, 1969. The \$27,500 Award was shared by (left to right) Toichiro Kuwabara, M.D., Morton Grant, M.D., David G. Cogan, M.D., Director, and Jin H. Kinoshita, Ph.D.



RPB President Robert E. McCormick (right) was honored in May, 1969 with the Citizen's Award of the New York County Medical Society "for his leadership in the founding of Research to Prevent Blindness, Inc. and his dedicated efforts in the achievement of its objectives in the saving of sight." Presentation of the Award was made by Dr. Albert M. Schwartz (center), President of the Society, accompanied by Gerard Piel, publisher of *Scientific American*.



Economics and eye research

Medical research was in serious financial trouble during 1969. The threat of drastic reductions in Federal support, mentioned in last year's Annual Report, became a reality. Wherever scientists had come to depend too heavily upon the Federal government for support, their most optimistic plans were in jeopardy, their morale deflated. Never before was the need for unrestricted financial assistance from private sources so clearly underlined. An eminent RPB grantee wrote:

"This has been a year of uncertain financing when uncommitted funds have had inordinate value in plugging holes caused by (government) cutbacks and guaranteeing continuity of research despite the threat of cutbacks. The RPB support has been a bulwark against contingencies which arose, but even more for contingencies which did not occur but which would have been serious setbacks to research had we not had the uncommitted funds to permit long-term planning. This is the inestimable value of uncommitted funds for which we are most grateful to RPB."

In other years, in circumstances less favorable than those created by RPB, the

government's action would have had a devastating effect upon the future of eye research. The availability of RPB funds in the hands of eye research directors, while it did not heal all wounds, permitted them to act immediately to protect those areas of their programs that were most seriously threatened. It was not necessary to suspend or halt important operations. An order could be placed for a vital item of technical equipment. A commitment could be made for the employment of key personnel. There was no need to sacrifice, perhaps forever, a promising pilot study. Long range planning continued.

The existence of the newly-established National Eye Institute within the National Institutes of Health was a critical factor in protecting eye research from the serious cuts suffered by other Institutes. The Federal budget allocation for vision research and training continued to fall far short of the \$29,200,000 which Dr. Jules Stein and the nation's foremost ophthalmic scientists demonstrated to be a rock-bottom figure for realistic government support in fiscal 1969. Nevertheless, the actual budgetary commitment of \$23,293,000 represented a small rise over the previous year's allocation



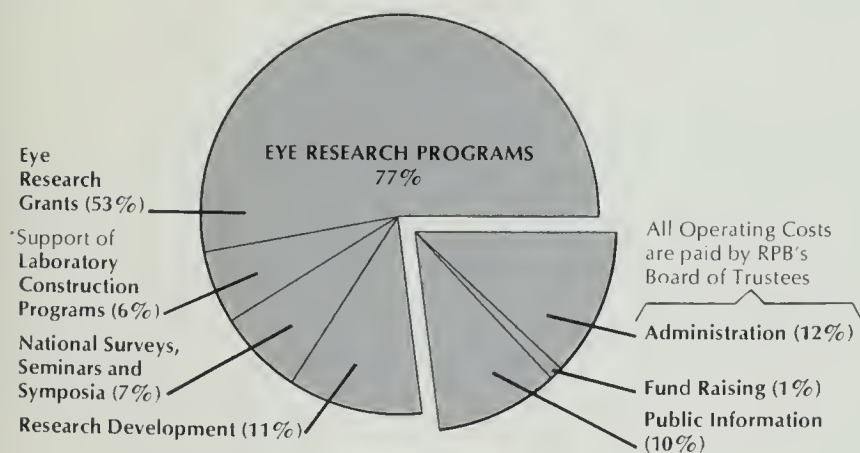
James S. Adams
Treasurer

to vision research before the separate Eye Institute was established. RPB's leadership in the creation of the new Institute, and its continuous indoctrination of Congress in the enormous potential of eye research, proved to be effective bulwarks against the more destructive cutbacks which might have taken place.

RPB's need for increased financial support becomes most urgent as demands for assistance increase. It has achieved extraordinary results with maximum economy. Administratively, it remains one of the smallest of all voluntary health groups, while maintaining its position among the nation's top-ranking contributors to medical research. Its income for the year 1969 exceeded \$600,000. The offer by Dr. and Mrs. Jules Stein to match dollar-for-dollar every contribution received from his annual year-end appeal brought another splendid response, with more than \$400,000 accruing to eye research as a result.

RPB's fund raising costs continue at less than two per cent. Its operating costs are met through the personal contributions of its Trustees.

How RPB Funds Have Been Invested 1960-69



RPB's operating costs are met through contributions from its volunteer Board of Trustees, thus freeing all other donations for programs in support of research. Its extremely low fund raising costs are the result of a highly selective approach to individuals, foundations and corporations.

*Represents expenditures in underwriting research building campaigns whose proceeds, amounting to \$12,000,000, were donated directly to the institutions involved, **not** to RPB.

RPB Budget of Expenditures and/or Commitments—1970

Research grants and other program expenditures or commitments:

Unrestricted Research Grants to medical schools and other institutions	\$200,000
International Research Scholars and Visiting Professors Program	100,000
Research Professorship Grants	150,000
Research Development Grants	25,000
Special, Emergency and Research Manpower Grants	50,000
Scientific Seminars and Symposia	19,000
Ophthalmic Awards for Outstanding Achievement	30,000
Research laboratory construction campaign expenses to provide new facilities at eye research centers	50,000
Program Development	35,000
Public and Professional Information	70,000
	<u>\$729,000</u>

Operating expenditures:

Staff salaries and consultants fees	35,000
Accountants' fee	4,000
Office equipment	1,000
General and health insurance	6,300
Pension and retirement plan	11,700
General administration	9,000
Fund raising	10,000
Contingencies	1,000
Total operating expenditures	<u>78,000</u>
Total planned expenditures and commitments	<u>\$807,000</u>

Research to Prevent Blindness, Inc.

Statement of Financial Position—December 31, 1969

Assets:

Cash:

Checking accounts	\$ 104,950	
Interest-bearing accounts	61,459	

Investments, at cost:

MCA Inc. common stock— 21,042 shares (quoted market—\$412,949) (Note 2)	\$ 746,093	
U.S. Government securities (quoted market—\$1,201,228)	1,227,943	
Corporate bonds (quoted market—\$382,500)	499,984	
Other securities (quoted market—\$14,427)	22,468	
	<u>2,496,488</u>	

Less—Reserve to reduce investments to quoted market	485,384	2,011,104
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Interest and dividends receivable and other assets	45,243	
	<u>2,222,756</u>	

Liabilities:

Accounts payable and accrued expenses	11,068	
Professorship grants	67,500	78,568

Deferred Income:

(donation designated to cover 1970 expenditures)	214,625	
Net assets	<u>\$1,929,563</u>	

Statement of Operations

Income:

Donations:

	Year Ended December 31	
	1969	1968
Securities, at market value on date of gift	\$ 265,729	\$ 259,305
Cash	198,504	233,547
Personal property, at amounts realized	6,818	1,000
	<u>471,051</u>	<u>493,852</u>
Interest and dividends	129,976	108,977
(Loss) gain on sale of securities	(21)	75,616
Total income	<u>601,006</u>	<u>678,445</u>

Program grants and expenditures:

Research grants to medical schools and other institutions	195,200	255,144
Public information	48,876	45,716
Scientific surveys, seminars and symposia	41,210	7,177
Program development to stimulate laboratory expansion programs and the intensification of ophthalmological research activities	32,831	45,823
Scientific achievement awards program	6,181	31,445
Research manpower awards	2,000	9,250
	<u>326,298</u>	<u>394,555</u>

Expenses:

Administration	57,133	58,315
Fund raising (Note 1)	5,502	5,568
	<u>62,635</u>	<u>63,883</u>
Provision required to reduce investments to quoted market	419,099	66,286
Total deductions	<u>808,032</u>	<u>524,724</u>
(Decrease) increase in net assets	(207,026)	153,721
Net assets at beginning of year	2,136,589	1,982,868
Net assets at end of year	<u>\$1,929,563</u>	<u>\$2,136,589</u>

While RPB's programs are directed primarily at the prevention of blindness, a collateral dividend of one grant has been the development of a vinyl paper through which blind persons may interpret and write standard arabic letters, no longer subject to limitations of braille. A close-up shows embossed letters which result from printing on the paper, which may be produced and read by the blind and sighted alike.

(RPB Grantee—Washington University, St. Louis)



Notes to the Financial Statements—December 31, 1969

Note 1: Research to Prevent Blindness, Inc. (RPB) pays all fund raising costs for eye research building campaigns which it initiates and sponsors for leading medical research centers throughout the United States. Contributions resulting from such campaigns are not received by or channeled through RPB, but are given by contributors directly to the medical centers. During 1969, construction campaigns were in the process of completion or development at the Columbia-Presbyterian Medical Center, University of Louisville, and Duke University. These institutions report that contributions and pledges, not including governmental funds, in excess of \$8,400,000 had been received from the inception of their campaigns to December 31, 1969. RPB campaigns concluded in 1964 and 1966 resulted in the construction of eye research buildings at The Johns Hopkins University and the University of California, Los Angeles.

Note 2: Substantially all of the MCA Inc. common stock held by Research to Prevent Blindness, Inc. can be transferred or hypothecated only if registered under the Securities Act of 1933, as amended, or as is otherwise provided by law.

Note 3: Research to Prevent Blindness, Inc. has a trustee pension plan covering all active employees who have completed one year of service. The total pension expense for the year was \$9,403 (1968—\$10,017), which includes amortization of past service cost over a period of 10 years. The plan has been approved by the Internal Revenue Service.

Opinion of Independent Accountants

To the Board of Trustees
Research to Prevent Blindness, Inc.

In our opinion, the accompanying statement of financial position and related statement of operations present fairly the financial position of Research to Prevent Blindness, Inc. at December 31, 1969 and its income and expenses for the year, in conformity with generally accepted accounting principles applied on a basis consistent with that of the preceding year. Our examination of these statements was made in accordance with generally accepted auditing standards and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances, including confirmation of the cash and securities owned at December 31, 1969 by correspondence with the depositories. It was impracticable for us to extend our examination of donations received beyond accounting for amounts so recorded.

Price Waterhouse & Co.

May 13, 1970
New York, N.Y.

Research to Prevent Blindness, Inc./ 598 Madison Avenue, New York, N.Y. 10022

Officers and Trustees

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Chairman of the Board, MCA Inc., and former
practicing ophthalmologist

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Mrs. Albert D. Lasker, *Vice President*
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*Deceased November 26, 1969

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Harold F. Spalter, M.D.
Secretary, Scientific Advisory Panel

Albert V. Burns
Director of Public Information

Bequests

to RPB are especially welcome as a means of assuring the continuity and stability of research programs.

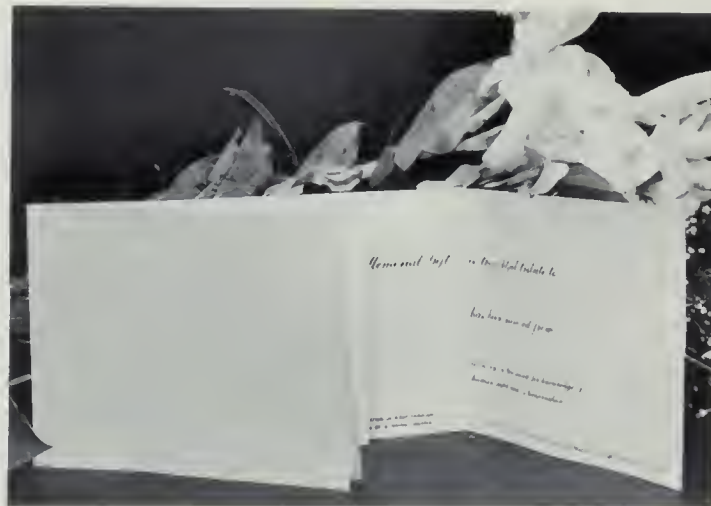
The proper form for such bequest is:

"I give and Bequeath

to Research to Prevent Blindness, Inc.
of 598 Madison Avenue, New York City,
a membership corporation organized
under the laws of the State of New York,
for its corporate purposes, the sum of
..... dollars."

Memorial Gifts

may be made to Research to Prevent
Blindness, Inc. in any amount and will
be acknowledged with dignity. An
appropriate Memorial Card
(see photo) is sent in behalf of the
giver to the family of the deceased.
The donor receives a Thank You card
of similar design.



Your contribution to Research to Prevent Blindness, Inc. is tax deductible.

"The 70's will be a crucial period in which the nation must decide whether unprecedented opportunities for preserving sight will be pursued, or that we will continue to live with 'blindness as usual'."

—Dr. Jules Stein



Research to Prevent Blindness, Inc./598 Madison Avenue, New York, N.Y. 10022